

Verbal–Visual Representations of Environmental Issues in an EFL Textbook: A Multimodal Analysis

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Abstract

Textbooks play a crucial role in EFL learning process, not only as pedagogical tools but also as semiotic sources that shape students' perspectives and identities, including students understanding and interpreting of environmental issues. Therefore, environmental issues must be explored critically, especially in relation to how meaning is conveyed through verbal and visual modes. However, previous multimodal researches on EFL textbooks have largely focused on visual elements or multimodal features in general, with limited attention to the relationship between verbal and visual modes. This study aims to analyze the ideational verbal-visual relations in representing environmental issues in an Indonesian textbook entitled *Bahasa Inggris Tingkat Lanjut: Let's Elevate Our English, Revised Edition*. This study uses a descriptive qualitative approach with a *Multimodal Discourse Analysis* analytical framework based on *Systemic Functional Linguistics*, focusing on the verbal-visual *Logico-semantic Relations*. The data sources in this study consist of 19 units of verbal-visual ensembles with an environmental theme that present ideational meaning. The ideational relationship between verbal and visual modes is analyzed from multimodality perspective, with analysis procedures referring to contemporary multimodal studies. The finding shows that verbal and visual modes interact through various ideational relations in constructing representations of environmental issues, predominantly *concurrent – equivalent meaning* through *expansion – elaborating*. These interactions show how the overall meaning in the representation of environmental issues is influenced by the relationship between modes, rather than by a single semiotic resource.

Keywords: *Verbal–visual Relations; Multimodal Analysis; Environmental Representation; Ideational Meaning; EFL Textbook.*

1. Introduction

English as a Foreign Language (EFL) textbook play a crucial role in education, serving not only as a tool for building linguistic competence but also as a medium for conveying values, perspectives, ideologies, and worldwide concerns, including environmental issues (Basya et al., 2025; Basya & Azida, 2024; Huang, 2025; Ibrahim & Damayanti, 2024; Jamilah et al., 2024; Lee, 2023). In line with this perspective, EFL textbooks have been developed over the past few years to present environmental issues by integrating a multimodal approach, combining verbal language with various visual elements such as photographs, illustrations, and graphic layouts to build meaning in an integrated manner (Basya et al., 2025; Basya & Azida, 2024; Gavilan Tatin et al., 2024; Ghouschi et al., 2021).

The portrayal of environmental issues in EFL textbooks have the potential to shape students' views on the relationship between humans and nature, cultivating environmental awareness and also ecological responsibility among students (Basya & Azida, 2024; Hamed, 2021; Ibrahim & Damayanti, 2024; Komarawan et al., 2025; Liu, 2025; Lyu &



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Cao, 2024; Shah et al., 2025). However, how these issues are conveyed is greatly influenced by the semiotic choices made in the text and visual modes (Ghoushchi et al., 2021). As discussed by Kress and van Leeuwen (2006), meaning in educational texts develops from the interaction of multiple semiotic resources, each contributing diverse experiential, interpersonal, and textual meanings. Thus, understanding how environmental issues build up is inextricably connected to an analysis of the interaction between verbal and visual modalities (Basya et al., 2025; Damayanti et al., 2021; Huang, 2025).

Multimodal Discourse Analysis and Textbook Studies in EFL Contexts

Many researchers have studied multimodal aspects in depth, resulting in numerous definitions of *multimodal discourse* emerging from various researchers' perspectives. Lin (2025) defines multimodal discourse as a conceptual unit that has more than two integrated modes of communication to produce meaning. This is in line with the opinion of Kress and van Leeuwen (2020), who integrated that *multimodal discourse* is discourse that uses multiple social semiotic systems—such as images, language, color, and layout—simultaneously (Hafiz et al., 2024; Lyu & Cao, 2024; Pramestri & Priyana, 2025; Singh & Lunyal, 2025; Suwandani & Hidayati, 2025). Furthermore, *multimodal discourse* can be defined as a unit of communication that engages more than one of the five human senses (Lin, 2025). Drawing on these perspectives, it can be understood that *multimodal discourse* is a form of discourse constructed by the interaction of combined semiotic modes to produce a complete meaning (Bin, 2025; Hadriyan et al., 2022).

Thus, *multimodal discourse analysis* can be understood as an approach that focuses on how the use and interaction between semiotic modes, such as language, images, colors, and layout, in a discourse construct meaning (Hadriyan et al., 2022; Hafiz et al., 2024; Rafelina & Hermawan, 2022; Zollo, 2024). Through the lens of multimodality, the meaning of a discourse is not only generated from the text, but is integrated with visual and design elements that complement each other to support comprehension, shape interpretation, and convey ideational meanings (Sugianto et al., 2021, 2022; Tafrijiyah, Kaamilah; Andriani, 2025) Studies consistently show that images in textbooks are not merely illustrative but also play an active role in the process of meaning-making by reinforcing, expanding, or recontextualizing verbal content (Fitri et al., 2023; Fitriana & Wirza, 2021; Nisak & Rukmini, 2021)

In the context of teaching English as a foreign language (EFL) in Indonesia, analysis of multimodal textbooks highlights how visual-verbal relationships influence students' understanding of subject matter, cultural values, and learning objectives (Basya et al., 2025b; Bin, 2025; Suwandani & Hidayati, 2025) Even so, researchers note that although multimodal resources are widely displayed, analytical studies often remain descriptive, focusing on identifying modes rather than critically examining how specific types of meaning are constructed across modes (Bin, 2025).

Environmental Issues in EFL Textbooks

Environmental issues in *English as a Foreign Language* (EFL) textbook have often been the focus of academic inquiry (Fitriana & Wirza, 2021). This is because educational textbooks are never neutral. Scholar such as Fairclough (1995) argues that textbooks contain a *hidden curriculum* or *hidden agenda* to instill certain values and worldviews in students. Thus, textbooks are often used as a tool for shaping social reality and students' perspectives (Basya et al., 2025). Therefore, environmental issues are increasingly included in learning themes that aim to support linguistic competence as well as instill value, in this context, environmental awareness (Ibrahim, 2024). These issues are generally presented in the form of reading texts, discussion questions, and images that represent nature, pollution, conservation, or environmental damage.

Empirical research in science and ecology education reveal that visual representations play a vital role in making complicated environmental issues more understandable and meaningful for students (Fitri et al., 2023; Jamilah et al., 2024; Sugianto, 2021; Wanselin et al., 2023). However, a number of previous studies still tend to focus on the existence of environmental issues and their frequency of appearance in EFL textbooks, while how these issues are constructed and interpreted through the interaction between semiotic resources – in this case visual and verbal modes – has received relatively less attention. This limitation highlights the need for multimodal analyses that examine ideational meaning across semiotic resources, especially in the context of environmental issues.

Ideational Meaning and Verbal–Visual Relations

To investigate how environmental meanings are developed multimodally, numerous researchers use *Systemic Functional Linguistics* (SFL) as the theoretical basis. Within SFL, Halliday and Matthiessen (2013) suggest three *metafunctions* of meaning: *ideational*, *interpersonal*, and *textual* (Fitriana & Wirza, 2021; Jauhara et al., 2021; Nisak & Rukmini, 2021). The *ideational metafunction* addresses with how experience is represented through processes, participants, and circumstances (Yasmin et al., 2025). Further, ideational meanings are not limited to verbal language rather can also be expressed visually in multimodal text (Damayanti et al., 2021; Pagano et al., 2018). Thus, this type of metafunction is used to examine the data in this study.

Grounded in the SFL approach focused on *ideational metafunction*, Unsworth (2006) and Daly and Unsworth (2011) propose a theoretical framework for *ideational intersemiotic relations* that classifies how verbal and visual modes interact through *ideational concurrence*, *complementarity*, and *connection*. Empirical research employing this approach for picture books, children's literature, and learning materials demonstrates that meaning frequently emerges from complementary interactions in which images and words provide complementary experiential information (Damayanti et

al., 2021) This framework especially ideational complementary relations between verbal and visual modes have been empirically applied in contemporary multimodal research *through visual-verbal Logico-Semantic Relation system*, including those by Pagano et al. (2018) and Damayanti et al. (2021), demonstrating visuals can provide contextual and circumstantial meanings that are absent from verbal modes.

Although the number of studies on multimodal textbooks continues to increase, research that systematically analyzes how environmental issues are represented through ideational verbal-visual relationships in *Bahasa Inggris Tingkat Lanjut: Let's Elevate Our English revised edition* is still limited (Damayanti et al., 2021; Fitriana & Wirza, 2021). Existing research tends to analyze previous edition textbooks or prioritize thematic presence over semiotic construction (Basya & Azida, 2024; Gavilan Tatin et al., 2024; Suyadi & Aisyah, 2023). As a result, little is known about how textbooks revised in the latest curriculum reform construct environmental meaning multimodally, making this study highly relevant and urgent.

In response to this gap, this study examines the representation of environmental issues in the textbook, which is officially certified and widely used in Indonesian senior high schools. As far as the researcher is aware, no prior research has used a multimodal framework based on SFL (Systemic Functional Linguistics) to analyze this revised edition with an emphasis on verbal-visual ideational relations.

Within the field of applied linguistics and multimodal discourse analysis, this study adopts the framework proposed by Unsworth (2006) and Daly and Unsworth (2011), with particular attention to *ideational complementarity* through the *visual-verbal Logico-Semantic Relations system*. Although all types of *ideational relationships* are considered, *ideational complementarity* is highlighted to explore how environmental meaning is extended across verbal and visual modes.

Based on the study aims and theoretical framework used, the research questions are developed as follows:

- 1) How are ideational relations between verbal and visual modes used in representing environmental issues in EFL textbooks?
- 2) Which ideational verbal-visual relation is most dominant in the representation of environmental issues in the textbook?

By answering these questions, this study aims to contribute to research on multimodal textbooks development and present a critical perspective on how environmental issues are constructed semiotically for learners of English as a foreign language (EFL).

2. Method

This study adopts a *qualitative descriptive approach* to analyze environmental representations in an EFL textbook with a *Multimodal Discourse Analysis (MDA)* framework in line with the principles of multimodality proposed by Kress and van Leeuwen (2020). This study examines the ideational meanings of environmental issues in a *Merdeka Curriculum* EFL textbook, realized through *verbal-visual Logico-Semantic Relations system*, as well as how these two modes interact to create meaning. The purpose of this analysis is to identify the most common verbal-visual interactions used in the textbook to express environmental issues and explores how the meanings are constructed through the interaction between various semiotic modes.

Research design and analytical framework

This study is conceptually grounded in Systemic Functional Linguistics (SFL), specifically the concept of ideational metafunction developed by Halliday and Matthiessen (2013). To further expand the ideational analysis beyond language, this study utilizes the ideational verbal-visual relationship framework proposed by Unsworth (2006) and further developed by Daly and Unsworth (2011). This framework categorizes verbal-visual relationships into ideational congruence, ideational complementarity, and ideational connection. Although all three types are considered in answering the research objectives, ideational complementarity is used as an analytical lens to interpret how environmental meaning is extended across modes.

Data Source

The data were obtained from *Bahasa Inggris Tingkat Lanjut: Let's Elevate Our English* textbook, revised edition, which is officially used in Indonesian senior high schools. This textbook was chosen because it is the latest edition published by the *Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia* in 2024. Thus, this book is expected to be better than the previous edition in representing how environmental issues were represented multimodally and also relevant to current education policies and learning practices. Furthermore, to date, there have been no published studies examining this revised edition using a multimodal framework based on SFL (Systemic Functional Linguistics) with a focus on ideational verbal-visual relations.

Data Selection

The unit analysis of this study consists of 19 multimodal ensembles from several chapters in the textbook which the multimodal modes jointly represent environmental issues. The multimodal unit consists of both visual and verbal modes, including titles, image captions, reading texts, comprehension questions, and pedagogical instructions (Basya &

Azida, 2024; Fitriana & Wirza, 2021). However, in analyzing visual–verbal relations, only verbal texts that convey ideational meaning—such as titles, captions, and declarative statements that construe experiential content—are analyzed. Verbal elements that primarily serve pedagogical or interpersonal functions, such as questions and instructions, are acknowledged as part of the unit but are not included in the ideational analysis. The images are not analyzed separately, but always in relation to the accompanying verbal elements, forming what is known as a verbal-visual ensemble. This approach highlights that meaning in educational texts is constructed through the integration of verbal and visual elements.

Data Analysis Procedure

The data analysis process was carried out in three stages, taking into account the principles of *Multimodal Discourse Analysis* (MDA) and referring to *Ideational Logico-Semantic Relations*. First, each multimodal ensemble related to environmental issues in the textbook titled *Bahasa Inggris Tingkat Lanjut: Let's Elevate Our English revised edition* examined to identify the visual and verbal modes and the experiential content. Second, Halliday and Matthiessen's (2013) *Logico-Semantic Relations* framework was used to investigate *ideational intersemiotic relations* between verbal and visual modes, with a focus on *projection* and *expansion* (Pagano et al., 2018). The verbal-visual ideational meanings were further investigated using the frameworks proposed by Unsworth (2006) and Daly and Unsworth (2011) to identify patterns of *concurrent* and *complementary meanings* (Damayanti et al., 2021). Finally, dominance pattern among the types of ideational relations were identified to answer the research question.

To optimize accuracy in the analysis, the classification process was based on explicit, theoretically grounded categories, and each data unit was analyzed repeatedly to ensure consistency. Representative examples are presented in the Results section to illustrate each type of conceptual verbal-visual relations.

3. Findings and Discussion

Analysis Results of Verbal–Visual Ideational Relations

Logical-Semantic Relationship between verbal and visual modes is divided into two systems, namely projection and expansion. However, none of the data fulfill the characteristics of the projection category, namely the presence of speech bubbles or thought bubbles within the modality ensemble. Based on the 19 visual-verbal ensembles, all *Logico-Semantic Relations* between verbal and visual modes in *Bahasa Inggris Tingkat Lanjut: Let's Elevate Our English revised edition* falls within the category of *expansion*. Therefore, the analysis of verbal-visual relations in this study focused on the *expansion* category system exclusively. This finding is consistent with that of Pagano et al. (2018) who stated that verbal-visual relationships in educational resources, particularly textbooks, are explanatory and informative rather than dialogic. The classification of verbal and visual relation types is presented in Table 1.

Table 1. Visual – Verbal Relations Type

Ideational Meaning Type	Frequency	Percentage
Elaborating – expansion and concurrent – equivalent meaning	9	47.37%
Extension – expansion and augmented – complementary meaning	3	15.79%
Enhancing – expansion and augmented – complementary meaning	7	36,84%
Total	19	

Within the framework of ideational relations proposed by Unsworth (Unsworth, 2006) and Daly and Unsworth (2011), the results of the analysis in systematic Table 1 show that the relationship between verbal and visual modes can be divided into two main categories, that are *concurrent meaning* and *complementary meaning* (Damayanti et al., 2021). These two patterns are manifested in the LSRs ideational intersemiotic relations framework by Halliday and Matthiessen (2014) through three subtypes of *expansion*, namely *elaborating*, *extension*, and *enhancing* (Pagano et al., 2018). These interactions indicate variations in how verbal and visual modes construct experiential meaning in the representation of environmental issues.

As shown in Table 1, the most frequent type is the *expansion-elaborating relation* with *concurrent – equivalent meaning*, followed by the *complementary – augmented relationship* through *enhancing – extension*, and the less common *expansion – enhancing relation* with *complementary – augmented meaning*. This distribution system offers an outline for more research into the function and pedagogical implications of verbal-visual interactions in environmental representation.

Concurrent–Equivalent Meaning through Expansion–Elaborating

Based on the frequency, the *concurrent – equivalent meaning* with *expansion – elaborating relationship* occurred the most in nine data points or 47.37%. This pattern indicates that verbal and visual texts convey consistent ideational meanings involving relatively similar participants, processes, and/or circumstances (Damayanti et al., 2021). In this case,

visuals generally serve to illustrate or reinforce meanings that have been conveyed in the verbal modes, without adding new experiential information. One representation of this category can be seen in the following image.

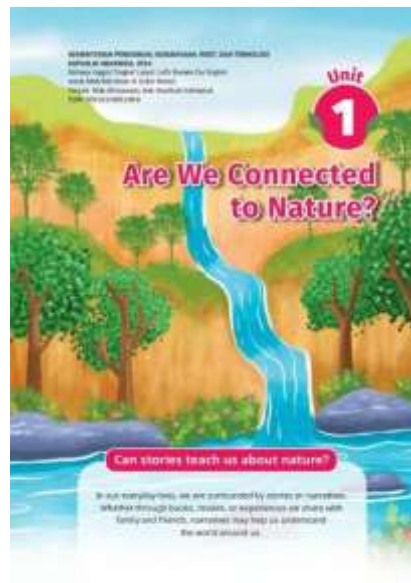


Figure 1. Cover of chapter 1

On the cover of Chapter 1, the verbal text “*Are We Connected to Nature?*” functions as a topic marker, while the jointly visual mode displays illustrations of natural landscapes in the form of waterfall, flowing rivers, trees, rocks and hills represents the same environmental theme that is *nature*. Both modes construe the same ideational meaning, with the participant and process relatively the same, thus allowing visuals to elaborate and clarify verbal meanings.

From a pedagogical perspective, this relationship functions as visual scaffolding that helps students understand environmental concepts more concretely. However, the dominance of equivalent meanings also indicates that in some parts, the potential of visuals to develop critical meanings is still limited.

From a pedagogical perspective, these results support the claim made by Damayanti et al. (2021b) that concurrence visual-verbal interactions can improve the understanding of beginner readers by reducing cognitive load (Damayanti et al., 2021b; Fitriana & Wirza, 2021a; Pramestri & Priyana, 2025). However, the dominance of these relationships can also be considered a limitation in representation. Visuals are used not to expand ecological discourse but to reinforce safe concepts without building critical thinking.

In other words, these findings both support and limit the initial assumption that multimodality has the potential to promote a more critical ecological awareness. This potential is not fully realized when visuals function only as passive illustrations.

Complementary–Augmented Meaning through Expansion–Enhancing

The second most common pattern in the analysis units in the textbook is the *complementary–augmented meaning* with *expansion–enhancing*, which appears in seven data points or 36.84%. In this relationship, the visual mode adds additional circumstantial information that is not explicitly mentioned in the verbal mode, such as the setting, environmental conditions, or situational context Damayanti. The image below represents this pattern.



Figure 2. Infographic about clean water rules

The verbal text in the *Clean Water Rules* infographic demonstrates the importance of *Clean Water Rules* and how they affect various aspects of life. Meanwhile, the visual elements illustrate a layered graphic representation of the water flow from upstream to downstream, as well as the human and environmental activities influenced by the circumstances. These visuals not only repeat verbal information, but also clarify and enrich the text's meaning by presenting contextual and situational details such as the relationships between upstream areas, fisheries, agricultural and livestock systems, residential areas, economic systems, and coastal areas. Through these interactions, the graphics provide readers with contextual information about the setting and environmental circumstances constructing complementarily between verbal and visual modes, allowing students to better comprehend how clean water rules affects human life and nature in general.

Yet, even though enhancing relations shows richer multimodal potential, the visuals in these data still rarely explicitly show human agency, so it seems like it tends to naturalize the environmental crisis without highlighting the social actors who also significantly impacted it.

Complementary–Augmented Meaning Expansion–Extension

In this data, the *expansion-extension relationship* with *complementary-augmented meaning* appeared the least frequently, with only three data points (15.79%). This relationship occurs when one mode enriches the meaning of another mode by presenting additional experiential elements that are not explicitly expressed in the verbal text (Damayanti et al., 2021). The *Keep the Ocean Clean* figure provides an example of this category.



Picture 3.10 Keep the Ocean Clean

Figure 3. Keep the ocean clean

In this data, the verbal text is only a brief call to maintain ocean cleanliness, while the visual mode displays a fish skeleton showing the impact of marine pollution. By adding environmental consequences that are not directly mentioned in the text, the visual mode extends the meaning of the verbal appeal through the symbolization of environmental conditions.

Although it supports critical thinking, the fact that this type appears least frequently, in only 3 of the 19 data points, shows that this textbook does not consistently use visuals to critically expand ecological discourse. This reinforces the criticism of Javahery et al. (2025) and Zollo (2024) that environmental education often stops at the level of awareness rather than transformation.

Discussion

This section discusses findings related to research objectives, the theoretical framework, and prior research discussed in the introduction. This conversation critically examines how ideational verbal-visual interactions influence the construction of environmental meaning in textbooks.

Ideological Complementarity in the Construction of Environmental Meaning in the Textbook

This study shows that the environmental issues in Bahasa Inggris Tingkat Lanjut: Let's Elevate Our English (Revised Edition, 2024) are dominantly constructed through ideational complementarity of verbal and visual modes. This finding reinforces the main claim presented in the Introduction that the environmental meaning in *English as a foreign language* (EFL) textbooks is inherently multimodal and cannot be adequately interpreted through verbal analysis on its own. Through nineteen data units, verbal texts and visuals consistently contribute diverse elements of experience, resulting in meaning that emerges from both rather than from each mode of communication separately. This pattern supports the core argument in multimodal discourse studies that emphasizes that ideational meaning is distributed across semiotic sources (Kress & van Leeuwen, 2006; Unsworth, 2006).

Prior studies on *English as a foreign language* (EFL) textbooks have also reported that visuals play a crucial role in helping students understand complex subject matter, including environmental issues (Basya & Azida, 2024; Damayanti et al., 2021; Pagano et al., 2018). The current findings expand this field of research by showing how this facilitation works at ideational relations level. Rather than repeating verbal content, visuals in textbooks serve to complement the content by providing experiential meaning that are not fully expressed through language.

Expansion as the Semiotic Representation of Ideational Complementarity

This analysis shows that ideational complementarity in the data is systematically realized through expansive relations, which include elaboration, extension, and enhancement. This pattern is consistent with Halliday and Matthiessen's (2014) description of expansion as the dominant *Logico-Semantic Relations* in explanatory and educational discourse. Within the multimodal framework proposed by Unsworth (2006) and developed by Daly and Unsworth (2011), expansion allows verbal and visual modes to complement each other in representing experiences.

An elaboration relationship is observed when visual elements explain or provide examples of entities and processes introduced verbally, thereby making abstract environmental concepts more concrete. This function has been consistently identified in previous multimodal studies as an effective strategy for supporting comprehension in educational texts (Damayanti et al., 2025). An extension relationship occurs when images introduce additional details of the experience, such as other environmental situations or phenomena, thereby expanding the scope of meaning established by the verbal text.

Meanwhile, an *expansion-elaborating relations with concurrent-equivalent meanings*—identified as the most frequent pattern among the nineteen data units. Although this design aids EFL students' comprehension and serves as a visual aid, this pattern shows that visuals primarily serve to reinforce and clarify the content of the verbal text rather than provide new meaning or perspective. However, this pattern also indicates the limited use of visuals in promoting deeper understanding or critical engagement with environmental issues.

Next, the second most common is the *complementary-augmented meaning* through *expansion-enhancement relations*. This category shows that visuals can play a more significant role in conveying contextual and situational information. Visual modes such as infographics help students understand environmental issues as a system consisting of interactions between natural processes and human activities. This shows that the use of multimodal resources in pedagogy makes complex environmental concepts easier to understand and more coherent (Fitri et al., 2023; Hafiz et al., 2024).

Finally, the least frequently is the *complementary-augmented meaning* through *expansion-extension relationship*. The limited emergence of this type indicates that the representation of environmental issues is still descriptive in nature. Visuals rarely display new elements of experience related to actions, responsibilities, or the consequences of human activities. As a result, environmental issues are more often seen as passive conditions that exist rather than as problems that require active human intervention. The results show that the textbooks have not fully utilized visual features to foster critical environmental awareness and action.

Distribution of Experiential Meanings across Modes

The dissemination of experiencing meaning through verbal and visual modalities is prioritized in the textbook, as seen by the expansion-based complementarity phenomena. Environmental issues are presented utilizing an integration of general verbal explanations and contextual visual representations, allowing pupils to develop meanings through varied semiotic modalities. This approach is consistent with applied linguistics research that emphasizes the educational significance of multimodality for supporting meaning creation in the context of learning *English as a foreign language* (Jewitt et al., 2016; Weninger, 2021).

At the same time, expanding data tends to emphasize environmental circumstances, settings, and observable implications above complex causal sequences. From an ideational perspective, it indicates the meaning of events is predominantly expressed through contextual representations. Rather than an analytical limitation, this tendency reflects a specific way of organizing experiences that promotes situational understanding. A similar pattern has been observed in prior evaluations of *English as a foreign language* (EFL) textbooks, where visualizations are mostly employed to contextualize content rather than analytically demonstrate complex processes (Basya & Azida, 2024; Bin, 2025).

The Pedagogical Implications of Ideological Complementarity

The prevalence of ideational complementarity achieved by expansion highlights the significance of multimodal literacy in EFL instruction from a pedagogical perspective. In order to have a comprehensive understanding of environmental issues, learners are implicitly expected to integrate verbal and visual information because experiential meanings are distributed across media (Bin, 2025). This result supports claims presented in multimodal education research that explicit instructional support is necessary for multimodal text interpretation (Damayanti et al., 2025).

Studies have demonstrated that students' understanding of content-based areas, such as environmental issues, significantly improves when they are directed to focus on the relationship between text and image (Basya & Azida, 2024; Ibrahim & Damayanti, 2024). In this respect, the studied textbook provides significant multimodal resources that may help environmental learning, provided that these aspects are used pedagogically rather than as decorative illustrations (Lin, 2025; Sugianto, 2021; Talitha et al., 2025).

Overall, this discussion shows that the findings of this study are consistent with the theoretical claims stated in the introduction and are well supported by previous research. Environmental issues in textbooks are constructed largely on the basis of ideational complementarity, which is realized through expansive relationships to distribute the meaning of experience between verbal and visual modes. By emphasizing these ideational relationships, this study contributes to applied linguistics and ELT research by explaining how multimodal resources interact semiotically in the depiction of environmental content in contemporary EFL textbooks.

4. Conclusion

This descriptive qualitative study relies on *Systematic Functional Language* focusing on the *Logico-Semantic Relation system* framework proposed by Halliday and Matthiessen. To understand the ideational meaning of environmental issues representation, the ideational intersemiotic relations by Unsworth which developed by Daly and Unsworth used to analyze 19 ensembles of environmental issues presented in *Bahasa Inggris Tingkat Lanjut: Let's Elevate Our English, revised edition*. Based on those frameworks, it concludes that the verbal-visual relations in the textbook serve primarily in the *expansion* category, with the emphasis on *elaborating relations* and *concurrent-equivalent meanings* occurring most frequently (47.37%). These results imply that the visual mode is mainly utilized to reinforce and clarify verbal concepts. Although this pattern aids EFL learners' comprehension, the presence of *complementary-augmented relations*, particularly through *enhancing* (36.84%), demonstrates visuals' potential for contextualizing environmental issues and displaying the interrelationship between nature and human activities. However, the limitation of *extension relations* (15.79%) reveals that the portrayal of environmental issues remains largely descriptive, with insufficient emphasis on actions, responsibilities, and ecological consequences. In a pedagogical context, these findings indicate that *English as a foreign language* (EFL) textbooks are essential multimodal resources for environmental learning; however, they also reveal the need for academic guidance that promotes students' multimodal literacy so that verbal-visual relationships can be interpreted critically, rather than merely as illustrative resources.

5. References

- Basya, D., & Azida, B. (2024a). How does Indonesian Secondary-ELT Textbook Shape Environmental Consciousness? An Ecocritical Discourse Analysis. *English Linguistics and Literature (ELLit)*, 4, 91–107.
- Basya, D., & Azida, B. (2024b). How does Indonesian Secondary-ELT Textbook Shape Environmental Consciousness? An Ecocritical Discourse Analysis. *English Linguistics and Literature (ELLit)*, 4, 91–107.
- Basya, D., Halizah, S. N., & Diawati, N. (2025a). Does The EFL-Multimodal Textbook and Culture In The Independent Curriculum Represent Character Education?: A Critical Discourse Analysis. *SELL (Scope of English Language Teaching, Linguistics, and Literature) Journal*, 10(1), 66–87. <https://doi.org/10.31597/sl.v10i1.1220>
- Basya, D., Halizah, S. N., & Diawati, N. (2025b). Does The EFL-Multimodal Textbook and Culture In The Independent Curriculum Represent Character Education?: A Critical Discourse Analysis. *SELL (Scope of English Language Teaching, Linguistics, and Literature) Journal*, 10(1), 66–87. <https://doi.org/10.31597/sl.v10i1.1220>

- Bin, W. (2025). Visual Narratives in EFL Textbooks: A Multimodal Approach to Enhancing Cross-Cultural Awareness and Second Language Acquisition. *International Journal of Social Science Education and Humanities*, 1(1), 41–49. <https://doi.org/10.63313/ijssseh.9005>
- Damayanti, I. L., Febrianti, Y., Suryatama, K., Dewi, F., & Lubis, A. H. (2025). “Is Kancil Kind?”: Exploring the Interplay of Verbal and Visual Texts in a Picture Book for Teaching English To Young Learners. *Teflin Journal*, 36(1), 21–43. <https://doi.org/10.15639/teflinjournal.v36i1/21-43>
- Damayanti, I. L., Moecharam, N. Y., & Asyifa, F. (2021a). Unfolding layers of meanings: Visual-verbal relations in Just Ask—a children’s picture book. *Indonesian Journal of Applied Linguistics*, 11(2), 372–381. <https://doi.org/10.17509/ijal.v11i2.39195>
- Damayanti, I. L., Moecharam, N. Y., & Asyifa, F. (2021b). Unfolding layers of meanings: Visual-verbal relations in Just Ask—a children’s picture book. *Indonesian Journal of Applied Linguistics*, 11(2), 372–381. <https://doi.org/10.17509/ijal.v11i2.39195>
- Fitri, Khairunnisa; Alek; Hidayat, Didin Nuruddin; Husna, Nida; Sufyan, A. (2023). Multimodal Discourse Analysis of Figures Used in the English Textbook “Get Smart Plus.” *Linguistic, English Education and Art (LEEA) Journal*, 7(1), 199–215. <https://doi.org/10.31539/leea.v7i1.8536>
- Fitriana, W., & Wirza, Y. (2021a). An Analysis of Multimodal Text in EFL Textbook of Secondary School in Indonesia in Assisting Students’ Text Understanding. *Advances in Social Science, Education and Humanities Research*, 546, 627–632. <https://doi.org/10.2991/assehr.k.210427.095>
- Fitriana, W., & Wirza, Y. (2021b). An Analysis of Multimodal Text in EFL Textbook of Secondary School in Indonesia in Assisting Students’ Text Understanding. *Advances in Social Science, Education and Humanities Research*, 546, 627–632. <https://doi.org/10.2991/assehr.k.210427.095>
- Gavilan Tatin, I. A., Triyono, S., Jacobs, G. M., Trett, S., Soeta Bangsa, A. A., & Zhu, C. (2024). An Analysis of Environmental Education in Indonesian EFL Elementary School Textbooks. *International Journal of Education and Literacy Studies*, 12(3), 3–16. <https://doi.org/10.7575/aiac.ijels.v12n.3p.3>
- Ghoushchi, S., Yazdani, H., Dowlatabadi, H., & Ahmadian, M. (2021). A Multimodal Discourse Analysis of Pictures in ELT Textbooks: Modes of Communication in Focus. *Jordan Journal of Modern Languages and Literatures*, 13(4), 623–644. <https://doi.org/10.47012/jjml.13.4.2>
- Hadriyan, F., Mujiyanto, J. M., & Rukmini, D. (2022). The Use of Multimodal Discourse Analysis to Study the Relationship Between Visual, Lingual, and Written Text of Artificial Intelligence in TED (Technology, Entertainment, and Design) Talks YouTube Channel. *English Education Journal*, 12(4), 638–654. <https://doi.org/10.15294/eej.v12i4.68908>
- Hafiz, A., Kurniawati, D., Aryanika, S., Verawati, H., & Firdaus, W. Y. (2024a). Analyzing the Multimodal Discourse of the Tenth Grade English Work in Progress Textbook. *Journal of Linguistics and Social Sciences*, 2(1), 139. <https://doi.org/10.24042/jlss.v2i1.21536>
- Hafiz, A., Kurniawati, D., Aryanika, S., Verawati, H., & Firdaus, W. Y. (2024b). Analyzing the Multimodal Discourse of the Tenth Grade English Work in Progress Textbook. *Journal of Linguistics and Social Sciences*, 2(1), 139. <https://doi.org/10.24042/jlss.v2i1.21536>
- Hamed, M. S. E. M. (2021). Environmental Discourse in EFL Textbooks in Egypt: A Critical Ecolinguistics Case Study. *CDELTA Occasional Papers in the Development of English Education*, 74(1), 281–328. <https://doi.org/10.21608/opde.2021.195338>
- Huang, Y. (2025). An Ideational Intersemiotic Analysis of Ecological Discourses in China’s English Textbooks. *International Journal of Linguistics, Literature and Translation (IJLLT)*. <https://doi.org/10.32996/ijllt>
- Ibrahim, M. A. (2024). Exploring the Representation of Environmental Issues in an EFL Textbook for Secondary School: A Multimodal Analysis. *The Eurasia Proceedings of Health, Environment and Life Sciences*, 15, 29–40. <https://doi.org/10.55549/ephels.133>
- Ibrahim, M. A., & Damayanti, I. L. (2024). The Representation of Environmental Issues in an EFL Module for Primary School: A Multimodal Analysis. *JEELS (Journal of English Education and Linguistics Studies)*, 11(1), 23–50. <https://doi.org/10.30762/jeels.v11i1.734>
- Jamilah, S., Ismail, N. M., & Faizah, C. (2024). Multimodal Analysis of an English Textbook Used for EFL Young Learners. *New Language Dimensions*, 5(1), 50–63. <https://doi.org/10.26740/nld.v5n1.p50-63>
- Jauhara, D., Emilia, E., & Lukmana, I. (2021). Re-contextualising “Greeting”: A multimodal analysis in an EFL textbook. *Indonesian Journal of Functional Linguistics*, 1(1), 15–25. <https://doi.org/10.17509/ijfsfl.v1i1.32621>
- Javahery, Pourya; Abadi, Faezeh; Bavandi; Zahra; solhi, M. (2025). Aligning ELT with the United Nations’ Sustainable Development Goals : An Ecolinguistic Ana lysis of Coursebooks and Teacher Practices. *Language Teaching Research Quarterly*, 2025(53), 138–158. <https://doi.org/https://doi.org/10.32038/ltrq.2025.53.07>
- Komarawan, Y., Febryanto, M., & Bakhti, K. Y. (2025). De-naturalizing the worldviews underlying representations of eco-awareness: a multimodal critical discourse analysis of Indonesian EFL textbooks. *Journal of World Languages*, 1–36. <https://doi.org/10.1515/jwl-2024-0100>
- Lee, D. B. (2023). Critical Analysis of the Portrayal of Environmental Issues in Chinese Language Textbooks for Ethnic Koreans. *SAGE Open*, 13(2), 1–15. <https://doi.org/10.1177/21582440231181590>

- Lin, H. (2025). A Multimodal Discourse Analysis of English Textbooks -- A Comparative Study of Images in Old and New PEP 7A. *Journal of Education and Educational Research*, 13(3), 30–40.
<https://doi.org/https://doi.org/10.54097/h3555p30>
- Liu, X. (2025). A TRANSITIVITY-BASED ECO-LINGUISTIC ANALYSIS OF “GREEN” CONTENT IN SENIOR HIGH SCHOOL ENGLISH TEXTBOOKS IN CHINA. *International Journal of Education Humanities and Social Science*, 8(05), 61–73. <https://doi.org/https://doi.org/10.54922/IJEHSS.2025.1082>
- Lyu, T., & Cao, D. (2024). Multimodal Discourse Analysis of English Teaching Materials in Colleges and Universities from the Perspective of Ecological Philosophical Perspective. *Applied Mathematics and Nonlinear Sciences*, 9(1), 1–17. <https://doi.org/10.2478/amns-2024-1772>
- Nisak, S., & Rukmini, D. (2021). Relations Between Verbal Language and Visual Image in Student’s Textbook Implementing the Concept of Metafunctions. *English Education Journal*, 11(3), 406–416.
<https://doi.org/10.15294/ej.v11i1.45334>
- Pagano, A. S., De Paula, F. F., & Ferregueti, K. (2018a). Verbal and verbal-visual logico-semantic relations in picturebooks: An English-Brazilian Portuguese parallel corpus study. *Ilha Do Desterro*, 71(1), 53–76.
<https://doi.org/10.5007/2175-8026.2018v71n1p53>
- Pagano, A. S., De Paula, F. F., & Ferregueti, K. (2018b). Verbal and verbal-visual logico-semantic relations in picturebooks: An English-Brazilian Portuguese parallel corpus study. *Ilha Do Desterro*, 71(1), 53–76.
<https://doi.org/10.5007/2175-8026.2018v71n1p53>
- Pramestri, R. S., & Priyana, J. (2025). Multimodal Text Analysis of a Student’s Book for Grade VII of Junior High School. *Eduvest - Journal of Universal Studies*, 5(9), 11729–11743.
<https://doi.org/https://doi.org/10.59188/eduvest.v5i9.52184>
- Rafelina, D. P., & Hermawan, B. (2022). The Ideational Meanings of Multimodal Texts Presented in an EFL Textbook. *TLEMC (Teaching and Learning English in Multicultural Contexts)*, 6(2), 68–82.
<https://doi.org/10.37058/tlemc.v6i2.5815>
- Shah, W. A., Jatoi, Q. un nisa, & Shah, U. R. (2025). De-centering the anthropocentric worldview in language textbooks: A posthumanist call for discursive reparations for sustainable ELT. *Linguistics and Education*, 86(February), 101397. <https://doi.org/10.1016/j.linged.2025.101397>
- Singh, M., & Lunyal, Dr. V. (2025). Multimodal Critical Discourse Analysis of Gendered Language and Ideology on Social Media Platforms. *International Journal of English Literature and Social Sciences*, 10(3), 097–103.
<https://doi.org/10.22161/ijels.103.16>
- Sugianto, A. (2021). ‘Can We See It?’: Contextualizing ‘Deforestation’ from an English-Medium Science Textbook for a Primary School Level. *J-Lalite: Journal of English Studies*, 2(2), 86.
<https://doi.org/10.20884/1.jes.2021.2.2.5072>
- Sugianto, A., Andriyani, D., & Prasetyo, I. A. (2021). The visual-verbal text interrelation: Lessons from the ideational meanings of a phonics material in a primary level EFL textbook. *EnJourMe (English Journal of Merdeka) : Culture, Language, and Teaching of English*, 6(1), 1–10. <https://doi.org/https://doi.org/10.26905/enjourme.v6i1.5865>
- Sugianto, A., Prasetyo, I. A., & Asti, W. (2022). ‘Is the Picture Worth a Thousand Words?’: the Interpersonal Meanings of a Dialogue in an Efl Textbook. *Journal of Languages and Language Teaching*, 10(2), 187–198.
<https://doi.org/10.33394/jollt.v10i2.4510>
- Suwandani, F., & Hidayati, S. (2025). Conceptual Representation of Culture in EFL Textbook Images: A Multimodal Analysis. *Dinamika Ilmu*, 25(1), 99–122. <https://doi.org/10.21093/di.v25i1.10098>
- Suyadi, S., & Aisyah, S. (2023). Textbook Evaluation: A Framework for Evaluating the English Subject in Kurikulum Merdeka for the Tenth Grade. *Jurnal Ilmiah Universitas Batanghari Jambi*, 23(3), 2695.
<https://doi.org/10.33087/jiubj.v23i3.4551>
- Tafrijijyah, Kaamilah; Andriani, M. (2025). Multimodal Discourse Analysis of an English Language Learning Textbook in Indonesia. *Lire Journal (Journal of Linguistics and Literature)*, 9(1), 61–79.
<https://doi.org/10.33019/lire.v9i1.391>
- Talitha, S., Mulyati, Y., & Kurniawan, K. (2025). Multimodal Learning Module Based on Augmented Reality Technology to Enhance Students’ Information and Digital Literacy. *Jurnal Sositoteknologi*, 24(3), 347–360.
<https://doi.org/https://doi.org/10.5614/sostek.itbj.2025.24.3.5>
- Unsworth, L. (2006). Towards a metalanguage for multiliteracies education: Describing the meaning- making resources of language-image interaction. *English Teaching: Practice and Critique*, 5(1), 55–76.
- Unsworth, Len; Daly, A. (2011). Analysis and comprehension of multimodal texts. *Australian Journal of Language and Literacy*, 61–80.
- Wanselin, H., Danielsson, K., & Wikman, S. (2023). Meaning-Making in Ecology Education: Analysis of Students’ Multimodal Texts. *Education Sciences*, 13(5). <https://doi.org/10.3390/educsci13050443>
- Yasmin, Zarah Khodijah; Rangkuti, Rahmadsyah; Putri, Dian Marisha; Lubis, Tasnim; Harefa, Y. (2025). MULTIMODAL ANALYSIS OF VERBAL AND VISUAL ELEMENTS IN THE DAY YOU BEGIN.

Linguistics and Literature Journal, 6(2), 171–180.

http://jim.teknokrat.ac.id/index.php/linguistics_and_literature/index

Zollo, S. A. (2024). The EU and environmental education: A multimodal ecological discourse analysis. *Multimodal Communication*, 13(2), 185–197. <https://doi.org/10.1515/mc-2023-0073>